MATHEMATICS - MASTER OF SCIENCE

The Master's degree is designed to increase one's knowledge and understanding of mathematics beyond the Bachelor's degree level. It also prepares a student for future graduate work.

A candidate for a master's degree may select up to two minors in addition to the major. A minimum of 8 credits of graduate work is necessary for a minor.

Minimum Requirements for the Master's Degree

1. In fulfillment of the Graduate School requirement of a minimum of 30 semester credits of course work, the student must take at least 24 credits of mathematics or statistics from the courses listed below.
2. The student's program of study must be approved by the departmental Graduate Studies Committee.
3. The student must successfully complete a master's written examination and final master's oral examination.

Prefix	Title	Credits
Minimum Requirements		
Complete each of the following (12 credits):		
MATH 5350	Advanced Linear Algebra	3
MATH 5340	Abstract Algebra I: Groups and Rings	3
MATH 5360	Introduction to Real Analysis I	3
MATH 5365	Introduction to Real Analysis II	3
Complete two of the following:		*6*
MATH 5310	Introduction to Topology	
MATH 5320	Logic and Set Theory	
MATH 5410	Complex Analysis	
STAT 5210	Probability: Theory and Applications	
STAT 5220	Statistics: Theory and Applications	
STAT 5230	Elementary Stochastic Processes	
Complete two of the following		*6*
MATH 5420	Topology I	
MATH 5425	Topology II	
MATH 5430	Mathematical Structures in Logic	
MATH 5435	Universal Algebra and Model Theory	
MATH 5440	Partial Differential Equations I	
MATH 5445	Partial Differential Equations II	
MATH 5450	Abstract Algebra II: Fields, Rings and Modules	
MATH 5453	Module Theory and Homological Algebra	
MATH 5450	Abstract Algebra II: Fields, Rings and Modules	
MATH 5455	Introduction to Commutative Algebra and Algebraic Geometry	
MATH 5460	Measure and Integration	
MATH 5463	Real Analysis	
MATH 5465	Introduction to Functional Analysis	
STAT 5310	Foundations of Probability	
STAT 5330	Continuous Multivariate Analysis	
STAT 5335	Linear Models	
STAT 5340	Advanced Theory of Statistics I	
STAT 5345	Advanced Theory of Statistics II	
Total Credits		**24**

The Master's Written Examination

Candidates for the Master's in Mathematics must pass a written exam, offered at the end of the Fall and Spring semesters, based on the content of MATH 5350 and MATH 5360. Full-time students need to pass the written Master's exam no later than the Summer following their completion of MATH 5350 and MATH 5360, or the start of their fourth semester in the program, whichever comes first. Graduate assistants must adhere to this timetable. Any second try must be passed within one semester of the first.

The Master's Final Examination

The Master's final examination is an oral examination administered by the student's committee. The exam consists of a short presentation made by the student on a topic covered in the student's coursework, followed by an examination by the committee based on the presentation and related coursework in the student's program of study. When a Master's thesis has been written, the presentation and examination is based on the student's thesis. The student's committee consists of at least three departmental members and a Graduate faculty member from another department who serves as the Dean's representative. The oral exam must be completed at least 10 days prior to the end of the semester in which the candidate wishes to receive the degree.